

## National Environmental Public Health Tracking Program: Bridging the Information Gap

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In January 2001 the Pew Environmental Health Commission called for the creation of a coordinated public health system to prevent disease in the United States by tracking and combating environmental health threats. In response, the Centers for Disease Control and Prevention initiated the Environmental Public Health Tracking (EPHT) Program to integrate three distinct components of hazard monitoring and exposure and health effects surveillance into a cohesive tracking network. Uniform and acceptable data standards, easily understood case definitions, and improved communication between health and environmental agencies are just a few of the challenges that must be addressed for this network to be effective. The nascent EPHT program is attempting to respond to these challenges by drawing on a wide range of expertise from federal agencies, state health and environmental agencies, nongovernmental organizations, and the program's academic Centers of Excellence. In this mini-monograph, we present innovative strategies and methods that are being applied to the broad scope of important and complex environmental public health problems by developing EPHT programs. The data resulting from this program can be used to identify areas and populations most likely to be affected by environmental contamination and to provide important information on the health and environmental status of communities. EPHT will develop valuable data on possible associations between the environment and the risk of noninfectious health effects. These data can be used to reduce the burden of adverse health effects on the American public. *Key words:* environmental monitoring, environmental public health surveillance, information system integration, tracking. *Environ Health Perspect* 112:1409–1413 (2004). doi:10.1289/ehp.7144 available via <http://dx.doi.org/> [Online 3 August 2004]

network would be used to respond to, and eventually reduce, the burden of these diseases on the nation's population. The commission estimated the cost of this tracking network to be \$275 million annually.

Public health surveillance or tracking systems are critical in preventing and controlling disease in populations. Accurate and timely surveillance data permit public health authorities to determine disease impacts and trends, recognize clusters and outbreaks, identify populations and geographic areas most affected, and assess the effectiveness of public health interventions (Teutsch 2000). Most of the public health surveillance currently in place in the United States focuses on infectious diseases. We urgently need a more comprehensive national approach to the collection and analysis of noninfectious disease data and the integration of that information with environmental hazard monitoring and exposure data. The availability of these types of data in

### Why We Need an Environmental Public Health Tracking Network

At the turn of the 20th century, the American population faced significant health challenges. The recent shift in population from rural to urban that accompanied industrialization resulted in overcrowding in dilapidated housing served by inadequate water supplies and nonexistent waste disposal systems. These conditions led to continued outbreaks of infectious diseases that ravaged the population. In 1900 one-third of all deaths were caused by pneumonia, tuberculosis, or diarrhea, and 40% of these deaths were among children younger than 5 years (Bureau of the Census 1906). After the discovery of the "germ theory" of disease, much of the dramatic decrease in mortality from infectious disease in Western civilization was attributable to environmental public health measures such as disinfection of water, food safety regulations, and housing improvements, among others [Centers for Disease Control and Prevention (CDC) 1999].

The last half century witnessed a dramatic shift in the health burden of the U.S. population from infectious diseases to diseases such as cancer, birth defects, and asthma, many of which may be associated with environmental exposures. During the same period, advances in industrial science and technology led to the

development and production of tens of thousands of chemical compounds. Unheard of 50 years ago, these chemicals are now ubiquitous in our air, water, food, workplaces, and homes. Mankind has benefited substantially from these products, but the health implications of long-term exposure to low levels of these compounds are not well understood. The American people feel strongly that the environment plays a role in their health. A poll taken in 1999 by the Pew Charitable Trusts found that 87% of Americans believed that environmental factors such as pollution cause increased rates of diseases and health problems (Pew Charitable Trusts 1999).

In September 2000, after 18 months of review, the Pew Environmental Health Commission released a report on the state of environmental public health in the United States (Environmental Health Tracking Project Team 2000). The commission found that the environmental public health system was fragmented, neglected, and ineffective. The report stated that the current system does not have the capability to respond adequately to environmental threats. The first of a number of recommendations made by the commission called on the federal government to establish a national environmental public health tracking (EPHT) network to link information on environmentally related diseases, human exposures, and environmental hazards. The information from this tracking

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